The Law and the Public's Health: The Foundations

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The law has played a vital role in public health since the founding of the Republic when the principal threats to health and safety were epidemic diseases. Law creates public health agencies, designates their mission, provides their authority, and limits their actions to protect a sphere of freedom outlined by the Constitution. The law, therefore, has always been vital to public health. The field of public health law, however, has never been more important than after the catastrophic threats to health that occurred after the events of September 11, 2001, particularly the dangers from anthrax. Just as these threats, old and new, teach us about the importance of a strong public health infrastructure, they also remind us of the need for appropriate public health powers. Public health law, of course, is about not only power, but also restraint. Public health officials, to be effective, need to act with strong scientific evidence and with fairness and tolerance.

In this chapter, we present the foundations of public health law—its definition, infrastructure, constitutional underpinnings, and powers. For more indepth examinations of selected foundational topics, we refer readers to additional texts and resources. ¹⁻³ Before turning to a careful exploration of the legal basis of public health, we examine fundamental aspects of the field of public health.

THE POPULATION BASIS FOR PUBLIC HEALTH

Defining Public Health

The effort to capture the entire spectrum of public health activity in one definition is bound to be complex and challenging. The field of public health is broad, and the mix of disciplines makes justice difficult to bestow on all of them. The Institute of Medicine's 1988 report, *The Future of Public Health* offers a good starting point by describing public health's mission as "fulfill[ing] society's interest in assuring the conditions in which people can be healthy."

Several important and distinctive concepts are packed into this phrase: public health's collective action on society's behalf ("fulfill society's interest" and "assuring the conditions"), a broad view of the determinants of health ("the conditions in which people can be healthy"), and an emphasis on populations rather than on individuals ("in which people can be healthy"). In addition to these characteristics, public health is unique among health-related fields for the value and emphasis it places on prevention, protection, community health, education, and partnerships with varied organizations.

The mandate to "fulfill society's interests" and "assure" healthy conditions and quality services puts public health in frequent and compelling contact with the legal system. Likewise, "the conditions in which people can be healthy" recognizes the salience of the root causes or determinants of health—particularly those that may not be obvious, immediate, or perceived to be within the purview of other parts of the health system. In practice, this requires attention to the prevention of disease (not just to its detection and treatment) and to a view of disease that acknowledges the health implications of income, education, employment, and community.

Although the public health system often works in close partnership with the medical-care system to protect the public's health, many aspects of public health are not only essential but also unique. Different approaches to tobacco are a good example of these complementary approaches. Tobacco—the underlying cause of one of every five deaths in the United States—is a serious public health threat and causes a variety of diseases in smokers and others exposed to tobacco. The medical-care system focuses on treating the emphysema, lung cancer, and heart disease that result from tobacco use and provides individual counseling and perhaps assistance with smoking cessation (e.g., prescribing a nicotine patch for a smoker who wants to quit). The public health approach, on the other hand, seeks to change social norms about smoking (e.g., through media campaigns and by advocating smoke-free workplaces and public places) and has the goal of preventing tobacco addiction in the first place, especially among children.

Both approaches are needed, but their emphasis is at different points on the disease continuum (from prevention to treatment), and thus the two parts of the

system employ different tools. In the medical-care system, health-care providers focus on diagnosing and treating an individual patient. In the public health system, the "patient" is the community or an entire population. The diagnosis focuses on identifying risk factors and preventing disease or its consequences, and the treatment might involve policy changes, media campaigns, environmental changes, or enforcement of regulations. Medical care usually is offered according to a medical model in selected settings—such as physicians' offices, hospitals, and clinics—while public health involves numerous disciplines (medicine, epidemiology, economics, political science), settings (such as schools and workplaces), and tools (including the media, regulatory authority, and changes to policies, the environment, and individual behavior).

Public health also is unique in its status as a common good. National disease surveillance systems that track the health status of populations, laboratory tests and techniques that track strains of disease, and teams of epidemiologists and other scientists that can be deployed when outbreaks occur are all examples of functions that no single private or nonprofit entity could support and for which few, if any, market-based financial incentives exist. In this sense, the results of public health activities are truly common goods that benefit all of us, whether we are wealthy or poor, insured or uninsured, urban or rural, healthy or sick.

Public Health's Infrastructure

The 1988 Institute of Medicine report diagnosed a public health system in disarray and suggested three core functions for public health as a new framework to return public health to its roots: assessment, policy development, and assurance. The law is important in establishing each of these three vital roles within public health agencies. The three overlapping functions encompass the entire spectrum of public health activity, from surveillance functions that detect and monitor disease and injury patterns, to developing policies that promote health and prevent disease and disability, to ensuring that data-driven interventions address the health issues identified through assessment activities. The cycle is continuously renewed as assessment activities detect whether progress has been made, leading to a subsequent set of policy actions, interventions, and reassessment (Fig. 1–1). These core functions, in turn, were further delineated into more specific "essential services" of public health, which have since formed the basis for planning documents (such as *Healthy People 2010*) and ongoing research on the status of public health practice.

Another way to describe public health is to consider its key components, or infrastructure. In a recent report to Congress,⁶ The Centers for Disease Control and Prevention (CDC) identified three main components of the system's infrastructure, all of which work together to ensure that the public health system is fully prepared to carry out the core functions and essential services needed to

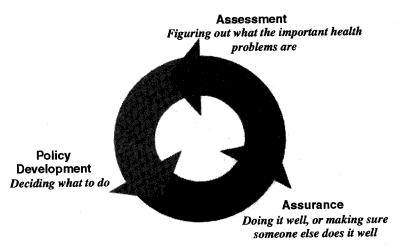


FIGURE 1-1. the core functions of public health. SOURCE: Adapted from the Washington State Public Health Improvement Plan

protect communities across the country from both routine and acute health events. These elements are (1) workforce capacity and competency, (2) information and data systems, and (3) organizational capacity.

Like the Institute of Medicine report that preceded it, the CDC status report on public health's infrastructure found many areas for concern. The report concluded that despite recent efforts and some improvements, the system's infrastructure "is still structurally weak in nearly every area." The Institute of Medicine's new report, Assuring the Health of the Public in the 21st Century, similarly draws attention to the inadequacy of the public health infrastructure to detect and respond effectively to disease threats.

Although the public health system has indeed been underfunded for decades, its contributions have been impressive. As British physician Geoffrey Rose⁸ has observed,

Measures to improve public health, relating as they do to such obvious and mundane matters as housing, smoking, and food, may lack the glamour of high-technology medicine, but what they lack in excitement they gain in their potential impact on health, precisely because they deal with the major causes of common disease and disabilities.

Public health's most dramatic accomplishment is the extension of the average life span, from 45 years at the turn of the twentieth century to nearly 80 years in 2002. Of these 35 years of "extra" longevity, only 5 or so can be attributed to advances in clinical medicine. Public health can take the credit for the other 30 years, thanks to improvements in sanitation, health education, the development of effective vaccines, and other advances (Table 1–1). U.S. census forms

TABLE 1-1. A Century of Public Health Accomplishment-United States, 1900-1999

30 years of increased longevity
Vaccinations
Healthier mothers and babies
Family planning
Safer and healthier foods
Fluoridation of drinking water
Control of infectious diseases
Decline in deaths from heart disease and stroke
Recognition of tobacco use as a health hazard
Motor vehicle safety
Safer workplaces

Source: Adapted from the CDC.9

now include three digits for recording a respondent's age—a tribute to the growing number of centenarians among us, now estimated to be approximately 70,000 Americans. Notice that for most of these achievements, law has played a vital role in relation to, for example, compulsory vaccinations, food and drug safety, regulation of the water supply, personal-control measures for contagious diseases, tobacco regulation (taxation, labeling and advertising, and tort actions), and regulation of car design and seatbelt use. Overall, these achievements highlight public health's protective role—the constant struggle to identify and minimize risk, whether it emanates from our own behaviors or those of others, the environments in which we live and work, our genetic legacy, or, as is often the case, some interplay among these.

Future Challenges

Of course, "fulfilling society's interest" is a task as immense as protecting the public's health (not only in the United States, but around the globe), and much remains undone. In the decades ahead, we are bound to face both known and unanticipated challenges. In the known category, challenges¹⁰ include

- Achieving meaningful changes in health-care systems, including instituting a
 rational health-care system that balances equity, cost, and quality; and eliminating health disparities among racial and ethnic groups
- Focusing on the chronologic milestones of *childhood and old age* by investing in children's emotional and intellectual development and working to achieve not only a longer life span but also a longer "health span," one that offers a better quality of life, mobility, and independence for the growing population of seniors
- · Addressing the risks posed by our lifestyles and the environment, such as

incorporating healthy eating and physical activity into daily life (to combat the twin epidemics of obesity and diabetes, among many other adverse health outcomes); responding to emerging infectious diseases (including new pathogens spread by travel, migration, and commerce, as well as microbial adaptation sped along by inappropriate use of antibiotics); and balancing economic growth with protection of our environment

- Applying what we already know and unlocking persistent mysteries about the brain and human behavior by recognizing and addressing the contributions of mental health to overall health and well-being and reducing the toll of violence (including homicide, suicide, and other types of violence) in society
- Exploring new scientific frontiers and applying new scientific knowledge (e.g., the mapping of the human genome) equitably, ethically, and responsibly

In many of these areas—including, for example, child development, mental health, obesity and physical activity, the environment, bioterrorism, and aging—promising science-based interventions are available and deserve support and broader implementation. In other areas, particularly the needs to delineate a rational health-care system, eliminate health disparities, curb violence, and manage new genetic knowledge, the course of action is less clear or even potentially divisive.

Like the public health achievements of the past, these future challenges will demand a blend of scientific innovation, technical and managerial expertise (especially regarding implementing health programs at the community level), persuasion, courage, and (last but not least) the skillful application of legal principles and tools. Public health's unique perspective can alter how these policy debates are framed and interpreted. By understanding and applying legal tools and principles that have already helped secure public health's achievements in the past century, the public health field can accelerate improvements in the public's health for decades to come.

CONCEPTUAL FOUNDATIONS OF PUBLIC HEALTH LAW

Public health law plays a unique role in ensuring the population's health. To demonstrate its importance, defining public health law and the public health law infrastructure are helpful.

Defining Public Health Law

A recent textbook defines public health law as "The study of the legal powers and duties of the state to assure the conditions for people to be healthy (e.g., to identify, prevent, and ameliorate risks to health in the population), and the limitations on the power of the state to constrain the autonomy, privacy, liberty,

proprietary, or other legally protected interests of individuals for protection or promotion of community health." This definition suggests five essential characteristics of public health law, which correspond with the characteristics of public health itself described in the previous section:

- Government: Public health activities are the primary (but not exclusive) responsibility of government. Government creates policy and enacts laws and regulations designed to safeguard community health.
- Populations: Public health focuses on the health of populations. Certainly, public health authorities are concerned with access and quality in medical care, but their principal concern is to create the conditions in which communities can be healthy.
- Relationships: Public health contemplates the relationship between the state and the population (or between the state and individuals who place themselves or the community at risk).
- Services: Public health deals with the provision of population-based services grounded on the scientific methodologies of public health (e.g., biostatistics and epidemiology).
- Coercion: Public health authorities possess the power to coerce individuals and businesses for the protection of the community rather than relying on a near universal ethic of voluntarism.

The Public Health Law Infrastructure

The public health law infrastructure includes public health laws (statutes principally at the state level that establish the mission, functions, powers, and structures of public health agencies) and laws about the public's health (laws and regulations that offer a variety of tools to prevent injury and disease and promote the public's health). The Institute of Medicine² and the Department of Health and Human Services¹¹ recommended reform of state public health laws. Public health laws are scattered across countless statutes and regulations at the state and local levels. Problems of antiquity, inconsistency, redundancy, and ambiguity render these laws ineffective, or even counterproductive, in advancing the population's health. In particular, health codes frequently are outdated, constructed in layers over different periods of time, and highly fragmented among the 50 states and the territories.¹²

Problem of antiquity

The most striking characteristic of state public health law—and the one that underlies many of its defects—is its overall antiquity. Certainly, some statutes are relatively recent in origin. However, much of public health law was framed in the late nineteenth and early to mid-twentieth centuries and contains elements

that are 40 to 100 years old. Old public health statutes are often outmoded in ways that directly reduce their effectiveness and conformity with modern standards. These laws often do not reflect contemporary scientific understandings of injury and disease (e.g., surveillance, prevention, and response) or legal norms for protection of individual rights. Rather, public health laws use scientific and legal standards that prevailed when they were enacted. Society faces different sorts of risks today and deploys different methods of assessment and intervention. When many of these statutes were written, public health (e.g., epidemiology and biostatistics) and behavioral (e.g., client-centered counseling) sciences were in their infancy. Modern prevention and treatment methods did not exist.

Problem of multiple layers of law

Related to the problem of antiquity is the problem of multiple layers of law. The law in most states consists of successive layers of statutes and amendments, constructed in some cases over 100 years or more in response to existing or perceived health threats. This is particularly troublesome in the area of infectious diseases, which forms a substantial part of state health codes. Because communicable disease laws have been enacted piecemeal, in response to specific epidemics, (e.g., smallpox, yellow fever, cholera, tuberculosis, venereal diseases, polio, and acquired immunodeficiency syndrome [AIDS]), they tell the story of the history of disease control in the United States. The disparate legal structures of state public health laws can significantly undermine their effectiveness. Laws enacted piecemeal over time are inconsistent, redundant, and ambiguous.

Problem of inconsistency

Public health laws remain fragmented not only within states but also among them. Health codes within the states and territories have evolved independently, leading to profound variation in the structure, substance, and procedures for detecting, controlling, and preventing injury and disease. In fact, statutes and regulations among U.S. jurisdictions vary so significantly in definitions, methods, age, and scope that they defy orderly categorization. There is good reason for greater uniformity among the states in matters of public health. Health threats are rarely confined to single jurisdictions but pose risks within whole regions or the nation itself (e.g., air or water pollution, disposal of toxic waste, and the spread of infectious diseases, either naturally or through bioterrorist events).

One approach to rectifying inconsistencies in public health law is to reform laws so that they conform with modern scientific and legal standards, are more consistent within and among states, and more uniformly address different health threats. A single set of standards and procedures would add needed clarity and coherence to legal regulation and would reduce the opportunity for politically motivated disputes about how to classify newly emergent health threats.

Law as a Tool to Safeguard the Public's Health

Public health laws constitute the foundations for public health practice while providing tools for public health authorities. At least six models exist for legal intervention designed to prevent injury and disease and to promote the public's health. Although legal interventions can be effective, they often raise social, ethical, or constitutional concerns that warrant careful study.

Model 1 is the power to tax and spend. This power, given in federal and state constitutions, provides government with an important regulatory technique. The power to spend enables government to set conditions for the receipt of public funds. For example, the federal government grants highway funds to states on condition that they set the legal drinking age at 21 years. The power to tax provides strong inducements to engage in beneficial behavior or refrain from risk behavior. For example, taxes on cigarettes significantly reduce smoking, particularly among young people.

Model 2 is the power to alter the informational environment. Government can add its voice to the marketplace of ideas through health promotion activities such as health communication campaigns; by providing relevant consumer information through labeling requirements; and by limiting harmful or misleading information through regulation of commercial advertising of unsafe products (e.g., cigarettes and alcoholic beverages).

Model 3 is direct regulation of individuals (e.g., seatbelt and motorcycle helmet laws), professionals (e.g., licenses), or businesses (e.g., inspections and occupational safety standards). Public health authorities regulate pervasively to reduce risks to the population.

Model 4 is indirect regulation through the tort system. Tort litigation can provide strong incentives for businesses to engage in less risky activities. Litigation has been used as a tool of public health to influence manufacturers of automobiles, cigarettes, and firearms. Litigation resulted in safer automobiles; reduced advertising and promotion of cigarettes to young people; and encouraged at least one manufacturer (Smith & Wesson) to develop safer firearms.

Model 5 is deregulation. The impact of laws may sometimes be detrimental to public health and may be an impediment to effective action. For example, criminal laws proscribe the possession and distribution of sterile syringes and needles. These laws, therefore, make engagement in human immunodeficiency virus (HIV) prevention activities more difficult for public health authorities.

The government, then, has many legal "levers" designed to prevent injury and disease and to promote the public's health. Legal interventions can be highly effective and need to be part of the public health officer's arsenal. At the same time, legal interventions can be controversial, raising important ethical, social, constitutional, and political issues. These conflicts are complex, important, and fascinating for students of public health law.

THE CONSTITUTIONAL UNDERPINNINGS OF PUBLIC HEALTH LAW

No inquiry is more important to public health law than understanding the role of government in the constitutional design. If, as we have suggested, public health law principally addresses government's assurance of the conditions for the population's health, then what activities must government undertake? The question is complex, requiring an assessment of duty (what government must do), authority (what government is empowered, but not obligated, to do), and limits (what government is prohibited from doing). In addition, this query raises a corollary question: Which government is to act? Some of the most divisive disputes in public health are among the federal government, the states, and the localities about which government has the power to intervene.

Government Duties to Ensure the Public's Health

Given the importance of government in maintaining public health (and many other communal benefits), one might expect the U.S. Constitution to create affirmative obligations for government to act. Yet, by standard accounts, the Constitution is cast purely in negative terms. The Supreme Court remains faithful to this negative conception of the Constitution, even in the face of dire personal consequences. In DeShaney v. Winnebago County Department of Social Services, 14 the Supreme Court held that government has no affirmative duty to protect citizens. In that case, a 1-year-old child, Joshua DeShaney, was beaten so badly by his father that he was left profoundly retarded and institutionalized. The social services department was aware of the abuse but took no steps to prevent further injuries to Joshua.

The Supreme Court has applied this line of reasoning in cases that bitterly divided the Court. In Webster v. Reproductive Health Services, 15 the majority saw no government obligation to provide services—in this case, medical services—to the poor 16 when a Missouri statute barred state employees from performing abortions and banned the use of public facilities for such. Referring to DeShaney, the Court rejected a positive claim for basic government services: "[O]ur cases have recognized that the Due Process Clauses generally confer no affirmative right to governmental aid, even where such aid may be necessary to secure life, liberty, or property interests of which the government itself may not deprive the individual." This negative theory of constitutional design, although well accepted, is highly simplified and, in the words of Justice Blackmun, represents "a sad commentary upon American life and constitutional principles." 14

Federal Powers to Ensure the Conditions for Public Health

In theory, the United States is a government of limited powers, but the reality is quite different. The federal government possesses considerable authority to

act and exerts extensive control in the realm of public health and safety. The Supreme Court, through an expansive interpretation of Congress's enumerated powers, has enabled the federal government to maintain a vast presence in public health—in matters ranging from biomedical research and the provision of health care to the control of infectious diseases, occupational health and safety, pure food and drugs, and environmental protection. The main constitutional powers for federal action in the realm of public health are the powers to tax and spend and to regulate interstate commerce.

At face value, the power to tax and spend has a single, overriding purpose: to raise revenue to provide for the good of the community. Without the ability to generate sufficient revenue, the legislature could not provide services such as transportation, education, medical services to the poor, sanitation, and environmental protection. The power to tax is also the power to regulate risk behavior and influence health-promoting activities. Broadly speaking, the tax code influences health-related behavior through tax relief and tax burdens. Tax relief encourages private health-promoting activity, and tax burdens discourage risk behavior.

Through various forms of tax relief, government provides incentives for private activities that it views as advantageous to community health. The tax code influences private health-related spending in many other ways: encouraging child care to enable parents to enter the work force; inducing investment in low-income housing; and stimulating charitable spending for research and care.

Taxation also regulates private behavior by economically penalizing risk-taking activities. Tax policy discourages a number of activities that government regards as unhealthy or dangerous. Consider excise or manufacturing taxes on tobacco, alcoholic beverages, or firearms. It is difficult to imagine a public health threat caused by human behavior or business activity that cannot be influenced by the taxing power. Similarly, the spending power does not simply grant Congress the authority to allocate resources; it is also an indirect regulatory device. Congress may prescribe the terms on which it disburses federal money to the states.

The Commerce Clause, more than any other enumerated power, affords Congress potent regulatory authority. The Commerce Clause gives Congress the power to regulate commerce "with foreign Nations, and among the several States, and with the Indian Tribes." At face value, the Commerce Clause is limited to controlling the flow of goods and services across state lines. Yet, as interstate commerce has become ubiquitous; activities once considered purely local have come to have national effects and have accordingly come within Congress' commerce power. The Supreme Court's broad interpretation of the Commerce Clause has enabled national authorities to reach deeply into traditional realms of state public health power.

The Rehnquist Court, however, has begun to rethink the Commerce Clause

as part of its agenda of gradually returning power from the federal government to the states. In the process, the Court has held that Congress lacks the power to engage in social and public health regulation primarily affecting intrastate activities. For example, the Court has held that Congress lacks the power to regulate firearms near schools¹⁸ and to provide a remedy for victims of sexual violence.¹⁹

POLICE POWERS: STATE POWER TO REGULATE FOR THE PUBLIC'S HEALTH AND SAFETY

The "police power" is the most famous expression of the natural authority of sovereign governments to regulate private interests for the public good. One definition of the police power is

the inherent authority of the state (and, through delegation, local government) to enact laws and promulgate regulations to protect, preserve and promote the health, safety, morals, and general welfare of the people. To achieve these communal benefits, the state retains the power to restrict, within federal and state constitutional limits, private interests—personal interests in autonomy, privacy, association, and liberty as well as economic interests in freedom to contract and uses of property.¹

The linguistic and historical origins of the concept of "police" demonstrate a close association between government and civilization: politia (the state), polis (city), and politeia (citizenship).²⁰ "Police" was meant to describe those powers that permitted sovereign government to control its citizens, particularly for promoting the general comfort, health, morals, safety, or prosperity of the public. The word had a secondary usage as well: "the cleansing or keeping clean." This use resonates with early twentieth century public health connotations of hygiene and sanitation.

States exercise police powers to ensure that communities live in safety and security, in conditions conducive to good health, with moral standards, and, generally speaking, without unreasonable interference with human well-being. Police powers legitimize state action to protect and promote broadly defined social goods.

Government, to achieve common goods, is empowered to enact legislation, regulate, and adjudicate in ways that necessarily limit, or even eliminate, private interests. Thus, government has inherent power to interfere with personal interests in autonomy, privacy, association, and liberty as well as economic interests in ownership, uses of private property, and freedom to contract. State power to restrict private rights is embodied in the common law maxim, sic utere tuo ut alienum non laedas, "use your own property in such a manner as not to injure that of another." The maxim supports the police power, giving government authority to determine safe uses of private property to diminish risks of injury and ill-health to others.²¹ More generally, the police power affords government the

authority to keep society free from noxious exercises of private rights. The state retains discretion to determine what is considered injurious or unhealthful and the manner in which to regulate, consistent with constitutional protections of personal interests.

The police powers have enabled states and their subsidiary municipal corporations to promote and preserve the public health in areas ranging from injury and disease prevention to sanitation, waste disposal, and water and air protections. Police powers exercised by the states include vaccination, isolation, and quarantine; inspection of commercial and residential premises; abatement of unsanitary conditions or other health nuisances; regulation of air and surface water contaminants; and restriction on the public's access to polluted areas, standards for pure food and drinking water, extermination of vermin, fluoridization of municipal water supplies, and licensure of physicians and other health-care professionals. These are the kinds of powers exercised daily by state and local public health agencies, as the following discussion demonstrates.

PUBLIC HEALTH POWERS: REGULATION OF PERSONS, PROFESSIONALS, AND BUSINESSES

The powers available to public health authorities in state statutes, as the previous discussion of police powers illustrates, are pervasive. Although systematically examining the full scope and complexity of the public health powers is not possible here, in this section we briefly outline selected principal authorities, many of which are detailed in subsequent chapters. These authorities group into the categories of the power to regulate persons, professionals, and businesses to safeguard the common good.

Regulation of Persons to Prevent Transmission of Communicable Disease: Autonomy, Privacy, and Liberty

Public health authorities have traditionally had a variety of powers to control personal behavior for preventing transmission of a communicable disease. These powers are essential to ensure effective surveillance and response to epidemics. The exercise of compulsory powers, however, also can interfere with autonomy, privacy, and liberty. As a society, we face hard trade-offs between the common good and the rights of individuals to a sphere of freedom. This section offers three illustrations of communicable disease powers: medical examination or testing, vaccination, and isolation or quarantine.

Medical examination and testing

State laws often provide public health authorities with the power to compel individuals to submit to testing or medical examination. Generally, testing and clinical examinations are not regarded as harsh legal requirements when the person may benefit. Some states require testing or examinations for sexually transmitted disease before marriage on the assumption that such testing can help prevent the spread of infection. Persons who engage in certain occupations, such as food handlers, nurses, and teachers, are required to submit to testing and examinations to be permitted to practice their occupation. Again, the rationale is that these examinations are useful in preventing disease (e.g., food handlers tested for typhoid or salmonellosis).

Compelling a person to undergo compulsory testing or examination is an invasion of autonomy and privacy and, therefore, requires a clear justification. Consider a recent Supreme Court decision that found compulsory drug testing of pregnant women to be a violation of the Fourth Amendment's proscription against unreasonable searches and seizures. Because the test information was shared with the police, the Court found that it lacked sufficient justification.²² By analogy, a public health officer could not order a woman to undergo an examination for a sexually transmitted disease because there was no reason to believe she was infected.²³

Compulsory vaccination

Compulsory vaccination has become a major tool of public health practice, even though its constitutionality was not upheld by the U.S. Supreme Court until the seminal case of *Jacobson v. Massachusetts* in 1905.²⁴ The principle established in upholding required smallpox vaccination has been applied in other compulsory vaccination requirements, with particular applicability to childhood diseases such as measles, rubella, and mumps.

Virtually all states permit religious exemptions from compulsory vaccination. State Supreme Courts (with the exception of Mississippi)²⁵ have permitted legislatures to create exemptions for religious beliefs.^{26,27} Even so, courts sometimes strictly construe religious exemptions, insisting that the belief against compulsory vaccination must be "genuine," "sincere," and an integral part of the religious doctrine.²⁸ A minority of states also permit exemptions based on conscientious objections.

Isolation and quarantine

Public health authorities have the power to isolate or quarantine persons who are infected or exposed and who pose a danger to the public's health. It is a drastic remedy to prevent the spread of disease, and it is not used with any frequency today.

One tool for preventing the spread of infection is the exclusion of cases and contacts from populations that have not been exposed such as in schools or workplaces; sometimes isolation or quarantine requires a complete separation of the person from contact with others. As late as 1966, it was held that the health officer may make an isolation or quarantine order whenever he or she shall

determine in a particular case that quarantine or isolation is necessary to protect the public health.²⁹ Still, the modern courts have required rigorous procedural due process before persons can be isolated or quarantined. In *Greene v. Edwards* (1980), the West Virginia Supreme Court reasoned that there is little difference between loss of liberty for mental health reasons and the loss of liberty for public health rationales.³⁰ Persons with an infectious disease, therefore, are entitled to similar procedural protections as persons with mental illness facing civil commitment. These procedural safeguards include the right to counsel, a hearing, and an appeal. Such rigorous procedural protections are justified by the fundamental invasion of liberty occasioned by long-term detention; the serious implications of erroneously finding a person dangerous; and the value of procedures in accurately determining the complex facts that are important to predicting future dangerous behavior.

Regulation of Professions and Businesses: Economic Liberty

Public health authorities have powers to regulate professions and businesses to safeguard the public's health and safety. These powers are important to ensure that professionals and businesses act in reasonably competent and safe ways. Professionals and businesses, however, also sometimes contest the validity of these powers because they interfere with economic freedoms to use property, enter into contracts, and pursue a profession. This section discusses several important regulatory powers: licensure, inspections, and nuisance abatement.

Licensure as a tool of public health

When a person is born, his or her birth certificate is likely to be signed by a licensed physician. When a person dies, he or she is buried by a mortician, also licensed by a state agency. Between birth and death, many other agencies with health responsibilities are regulated through the device of professional, occupational, or institutional licensure. A discussion of licensure therefore follows logically the subject of restrictions of the person because licensure is a restriction, an imposition of conditions limiting the person's freedom to carry on an activity, profession, occupation, or business of choice. The license requirement thus limits both the person's liberty and the use of the person's property. The imposition of such a restraint is justified because it protects the public health, safety, and welfare. Public health law, as an early field of administrative law, has used licensure effectively for many generations. The occupations and callings in the general area of public health are among the earliest of licensed occupations.

Licensure, like other police powers, is an authority afforded by the legislature. It authorizes a licensing agency, either a board of health, a board of regents, or a special professional or occupational board, to promulgate rules relating to

license applications and to control the licensed activity. The licensing law that delegates powers to the licensing agency may prescribe narrow or broad powers, granting it limited ministerial scope, such as collection of fees, or it may delegate broad regulatory powers to set rules for the exercise of the activity and giving the agency broad regulatory powers. The task does not end with granting licenses. The licensing agency generally has the continuing obligation to supervise the particular licensed activity. The obligation includes both the formulation of policy and standard setting in the light of what may be rapidly changing technology in the field and what may be changing needs of the people for protection.

Three major uses of licensure exist in areas related to public health. The first two are primarily matters of public health control or regulation. The first involves the licensing of people engaged in public health professions or occupations, such as physicians, dentists, nurses, physiotherapists, occupational therapists, psychologists, X-ray technologists, nutritionists, and many other allied health professionals. The second category is institutional licensure, such as state licensure of hospitals, intermediate-care facilities, nursing homes, clinics and ambulatory-care centers, and other places where patient health services are delivered, such as clinical and X-ray laboratories, including pharmacies and other businesses directly involved in rendering services. The third category is business that is not directly involved in providing health care and goods related to health care. Many businesses affect public health, including milk pasteurizing, food, energy, and public waste treatment.

Because licenses involve limits on a person's freedom to engage in particular activities, and because licensure grants a particular group of persons and businesses something of a monopoly, broad licensing powers can be justified only to protect the public health, safety, and welfare. Thus, all of the constitutional limitations that apply to the police power generally clearly apply to the grant of licenses and to the scope and fairness of licensing regulations. Licensure, in particular, should not be used as a device for economic control. Occupational licensure that restricts access to the field may be used by the "ins" to entrench themselves and to keep out the "outs." Licensure is used by some occupational groups to restrict competition, and it ought not to be misused for this purpose.

Licenses are now generally regarded as protected property rights. A license to carry on a business or engage in an occupation or profession has great value to the person or business that holds it. The question whether the government can revoke a license at any time because it was considered a mere privilege is no longer valid. A license, particularly in the field of institutional and occupational license in public health, incorporates valuable rights. Such a license is protected by due process and cannot be revoked or suspended without proper notice and hearing.

Searches and inspections

Inspections are a common tool in public health designed to protect the population's health and safety. They are used to determine whether conditions exist that are deleterious to health and that violate public health standards or rules designed to bring about proper healthful performance of particular businesses, trades, and industries. Administrative inspections, unlike criminal law searches, are not primarily intended to uncover evidence to be used in the prosecution of a crime.

Although searches and inspections have a different emphasis, for constitutional purposes courts have generally regarded inspections as a lesser species of searches that must be conducted with constitutional safeguards. Inspections may uncover violations of health standards, for which violators may be prosecuted and penalties imposed. Inspections span the entire field of public health-related law. Inspections may be conducted to ensure health and safety in health care (e.g., hospitals and pharmacies), agriculture, nuclear power, food and drugs (Food and Drug Administration law), workplaces (Occupational Safety and Health Administration law), restaurants, housing, plumbing, and child care.

Sometimes inspections are referred to as administrative searches, but this term may sometimes be confusing in light of the use of the term search, which usually applies to criminal prosecutions. However, both searches and inspections are subject to review under the Fourth Amendment, which proscribes "unreasonable" searches and seizures. Before 1967, health and housing inspections were generally treated as reasonable searches, causing few constitutional problems. In Camara v. Municipal Court of San Francisco (1967), the U.S. Supreme Court held that the Fourth Amendment also applied to administrative searches and inspections.³¹ Mr. Justice White, writing for the Court, held that a housing inspection was an intrusion on the privacy and security of individuals protected by the Fourth Amendment. Consequently, the public health authority must usually obtain a judicial warrant for an inspection. Inspection warrants, however, would normally be granted if the inspection is based on either the knowledge of an existing violation or a clear standard for routine inspections.

Although the Supreme Court has significantly changed the law of inspections, both before and after the decision in 1967 most inspections are carried out without a warrant because owners or occupants of premises generally will consent to inspections. Moreover, some exceptions exist to the inspection warrant requirement. For example, there is an exception for "pervasively regulated" businesses (e.g., firearms or alcoholic beverages). Pervasively regulated businesses are businesses so long and thoroughly regulated that persons who engage in the business have given up any "justifiable expectation of privacy." 32

The control of nuisances and dangerous conditions

The vast field of tort law includes intentional or negligent injuries to persons and harm to property. It includes, for instance, medical malpractice and products liability affecting the manufacture of, *inter alia*, drugs and vaccines. The vastness and complexity of the broad area of torts prevents its general inclusion in this section, which focuses predominantly on public rather than private remedies.

The term nuisance covers both public and private nuisances. In the public health context, the primary concern is with public nuisances, a term that covers a variety of conditions that violate requirements of health and safety. A nuisance is a condition that constitutes an interference with the public right to pursue the normal conduct of life without the threat to health, comfort, and repose, ranging variously from matters of significant annoyance to conditions that impose significant risks to health and safety, for example, excessive noise, stenches, filth that attracts insects or rodents, and chemical wastes that contaminate the water supply. Facilities that generate smoke, soot, chemical odors, or other substances regarded as air pollutants may also be public nuisances. All these examples share interference with the rights of the public, and all are prohibited by law. Although any number of these examples would be treated in earlier days as common law nuisances, public nuisances are today defined by statute or ordinance33,34 and are considered public offenses subject to criminal prosecution. Depending on the specific legislation, nuisances may also result in injunctive relief requiring "abatement."

The abatement of a public nuisance often involves the invasion of private property, so it must be clearly justified. If a health officer abates a nondangerous condition or acts excessively in light of the danger posed, then the purported abatement may constitute a "taking" or damaging of private property without due process of law, in violation of the Fourteenth Amendment. In such cases, the property owner may recover appropriate damages for the loss.³⁵

The exercise of compulsory power clearly is a staple of public health law. Control over persons or property is necessary to promote the common good in a well-regulated society. At the same time, coercive measures infringe individual rights—autonomy, privacy, liberty, and property. Public health law, therefore, requires a careful examination of the tradeoffs between collective goods and personal freedoms.

THE FUTURE OF PUBLIC HEALTH LAW

Public health law is experiencing a renaissance in the United States. For example, the CDC has developed a public health law program (PHLP) designed to improve scientific understanding of the interaction between law and public health and to strengthen the legal foundation for public health practice. The

PHLP has established a CDC Collaborating Center for Law and the Public's Health at Georgetown and Johns Hopkins universities; awarded a series of grants to investigate the connections between law and the public's health; and hosted the first national conference on public health law. At the same time, scholarship in public health law is blossoming, and new links are being formed between public health practitioners and attorneys.

National and state authorities are awakening to the possibilities of law reform to improve the public's health. The Robert Wood Johnson "Turning Point" Program is supporting the "Public Health Statute Modernization National Collaborative," a consortium of states and national public health organizations.³⁶ The Collaborative is conducting a comprehensive analysis of the structure and appropriateness of state public health statutes and developing a model state public health statute.

The events of September 11, 2001, provoked a national debate about the adequacy of the public health law infrastructure, and both federal and state governments began to examine the need for emergency health powers legislation. The CDC asked the Center for Law and the Public's Health at Georgetown and Johns Hopkins Universities to draft the Model Emergency Health Powers Act, which has now been adopted in whole or in part by a number of states.³⁷ Policy makers are realizing that the law relating to public health must be clear and consistent and afford strong and effective powers to public health authorities. At the same time, the law must respect personal freedoms and treat groups with fairness and tolerance.

The law, of course, cannot guarantee better public health. However, by crafting a consistent and uniform approach, carefully delineating the mission and functions of public health agencies, designating a range of flexible powers, specifying the criteria and procedures for using those powers, and protecting against discrimination and invasion of privacy, the law can become a catalyst, rather than an impediment, to reinvigorating the public health system.

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